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ABSTRACT

The aim of this paper is threefold: (1) to develop a concept of what creativity is (with particular reference to what musical creativity is); (2) to decide whether or not creativity is a plausible educational goal; and (3) to suggest what might be done to either promote or discourage musical creativity based upon the results of the first two discussions. Divided into two parts, part 1 is a philosophical inquiry that tackles the first aim of developing a concept of what creativity is. The second part answers the second and third aims. Creativity necessarily involves three dimensions: (1) a producer; (2) the product produced; and (3) the activity whereby the product is produced. This is obviously incomplete since in any instance of human activity it is also possible to consider the context in which an action is done. Creativity then is a fourfold concept at least. This four-dimensional view can be enriched an additional four times by looking at each of these four dimensions from four different directions. Originality is a necessary condition for calling something creative, but it is not sufficient by itself. Neither is the presence of craftsmanship a sufficient condition for calling something creative. In music the designation "creative" is awarded to works and performances that are quintessential examples of a particular style or technique, as well as to those that depart sharply from existing traditions. The basis for doing so in both cases is a matter of originality and significance within a tradition. Contains 27 references. (DK)

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Implications for Music Education

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The Concept of Creativity:
Implications for Music Education

David J. Elliott

The aim of this paper is threefold. The first aim is to develop a concept of what creativity is (with particular reference to what musical creativity is). The second aim is to decide whether or not creativity is a plausible educational goal. The third aim is to suggest what might be done to either promote or discourage musical creativity based upon the results of the first two discussions.

The paper has two parts. Part one is a philosophical inquiry; part two is not. Part one tackles the first aim; part two answers the second and third. But to say that part one is a philosophical inquiry is not enough. For the term "philosophy" is easily confused between two basic possibilities. Let me explain.

On one hand, "philosophy" may indicate an analysis of concepts through the application of philosophical methods. On the other hand, it may indicate an explanation of what has already been said by previous philosophers, or what is held to be true according to certain schools of thought, or "isms," like pragmatism and expressionism.

The first sense of "philosophy" requires us to do philosophy: it requires us to probe the foundations of meanings and meaningful activities; to analyze the logic behind traditional assumptions; to build comprehensive views; and to point out where our predecessors may have led us astray. Philosophy of this first sort might be thought of as common sense dressed up in a shirt and tie.

The second sort of philosophy does not require us to do philosophy, but only to summarize what has already been said by notable philosophers or "isms" of the past. Philosophy of the second sort involves sifting, sorting and packaging others' ideas for presentation in digest form. Philosophy of the second sort has been compared to an old cargo plane: it's something to admire, as long as it isn't directly over your head.

Most music education "philosophy" is of the second sort. What follows now is philosophy of the first sort: it is an attempt to do philosophy.

Part One: What is "Creativity"?

1. Ways of Proceeding

The most obvious and necessary way to begin this inquiry is to face our topic head-on and ask directly, What is creativity? In one sense, this is an easy question. Consider the following examples: Beethoven's Eroica, Darwin's Theory of Evolution, Alexander Graham Bell's telephone, Rembrandt's Night Watch, Margaret Atwood's novel The Handmaid's Tale, Plato's Republic, Wagner's The Ring of the Nibelung, Sir Georg Solti's recording of The Ring

of the Nibelung, Einstein's Theory of Relativity.

Each of these is an example of creativity if anything is. We would probably be surprised if a world inventory of "creativity" sought to exclude any one of them. We would probably be even more surprised if such a list did not include thousands more.

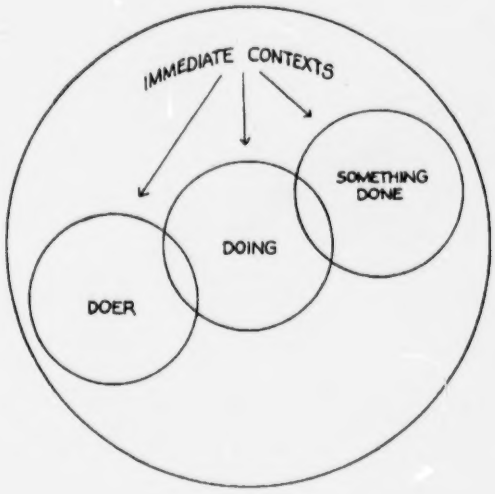
It seems, therefore, that although the term "creativity" is used in many ways, the basic idea is clear. People everywhere have a good sense of what creativity is. And everywhere we find people who believe that creativity is a good thing: the proof lies in the fact people honor and prize the Eroica, The Ring, and so on. On this view, our inquiry has found a beginning. But what follows next? I suggest that we now ask whether or not it is possible to say what the necessary dimensions of creativity are? I think it is.

In every example listed above, and in every undisputed example that comes to mind, we are presented with something obvious: a product of human activity. In each example above, a human being did something. And what s/he did was to make something. From the observation that creativity is, in one important sense, a product of human activity, several things follow.

First, creativity necessarily involves three dimensions: a producer, the product s/he produces, and the activity whereby s/he produces her product. But this is obviously incomplete since in any instance of human activity it is also possible to consider the context in which the doer does what s/he does. It seems, therefore, that "creativity" is a fourfold concept at least: it involves a doer, a doing, something done, and the context in which it is done.

The Concept of Creativity

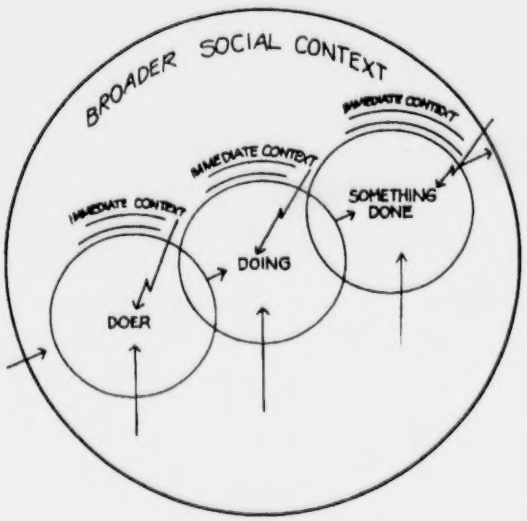
PHASE ONE



We are now ready to take a larger step forward. For it only takes a moment's reflection to realize that our four-dimensional view can be enriched a further four times by looking at each of these four dimensions from four different directions.

The Concept of Creativity

PHASE TWO



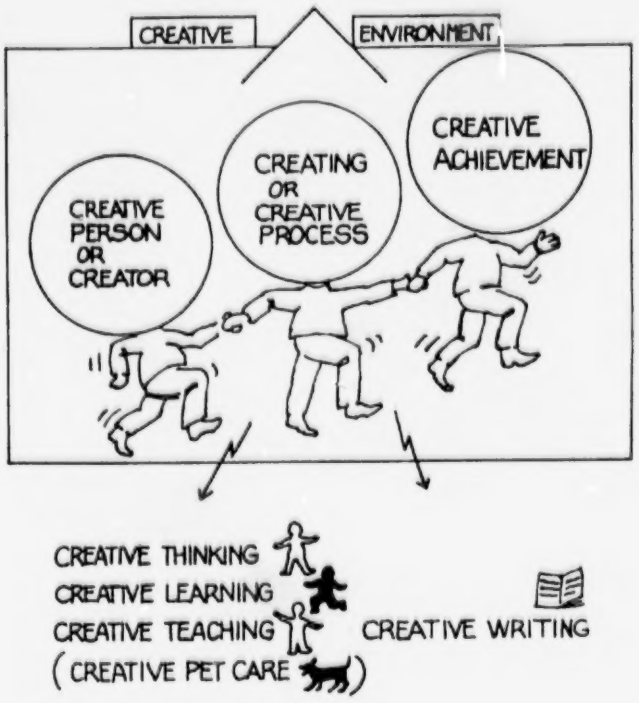
For example, we can look straight at what is done (say, Beethoven's Eroica); or in front of it (what it leads to); or behind it (where it comes from); or around it (its context of use and production). Similarly, the doing itself (the composing of the Eroica) may be looked at head-on, as a system of actions on its own; or from behind, in terms of motivated action; or from in front, as goal-directed action; or around, as an instance in a category of similar actions. This procedure can be repeated for the doer and the context of the doing. But in the case of contexts, things get more complicated. For "context" may be regarded as something pertaining to the situation of the doer, or the doing, or the thing done, or as something placed in a wider context than all of these.

From obvious beginnings, then, we now have several ways of proceeding to answer the question, What is Creativity? Which way shall we choose? We must employ them all, for a commitment to one would reflect a prior philosophical commitment typical of the second sort of philosophy that we have already eschewed in our introduction. Fortunately, these several ways of proceeding unfold into each other quite well. Nevertheless, occasional overlaps and ambiguities will occur as they always do when procedures are chosen for the purpose of building a comprehensive (rather than an unjustifiably selective) understanding of a concept.

2. Creativity as "Family"

In addition to ways of proceeding, this introductory analysis of "creativity" makes it clear that what the term really presents us with is not a single question, not an individual idea, not one concept, but a family of concepts with several key members and relations requiring a broad yet integrated consideration.

CREATIVITY: A Family of Concepts



Indeed, (and perhaps as a result of intellectual intercourse between the verb "to create" and the noun "creator," or whatever), our language has become overpopulated with "creative" offspring. Everywhere we look we see creative this and creative that; here creative, there creative; and everywhere we hear things like, "Be careful, don't step on his creativity!"

Nowadays all doers of whatever stripe are called creative persons, creators, or simply "creative." Doing of all sorts is called creative activity, or creative "process," or simply "creating," regardless of what such doings achieve. All things done become creative products or "creations." And every context is pregnant with "creative" possibility. Hence, our modern creative confusion.

For some scholars, the solution to this confusion lies in breaking down or breaking up the creativity family by examining its members in isolation. Some psychologists, for example, tend to focus exclusively on the doer. They then proceed to examine "creators" head-on in a quest for the mental "stuff" of creativity on the questionable assumption that such "stuff" actually exists.

Similarly, philosophers devoted to the aesthetic line of thinking focus on creativity as a mental process dominated by feeling. They theorize about "creativity" following 18th and 19th century notions of art and creating, and then proceed to collect the self-reports of carefully selected creators to support their questionable assumptions.

Perhaps it is time to step back and take a broader view. With the possibilities of our sixteen-part procedure in mind, let's meet the members of the creativity family, consider what the family business is, and seek out what makes this family of concepts so special.

3. Creativity: A Family of Merit

Linked to every undisputed example of creativity in the domains of music, poetry, chemistry and so on, there is a term that describes the making of a creative product more accurately than the term "creating." For example, in music we speak of composing, arranging, performing or improvising; in poetry we speak of writing; in chemistry we speak of theorizing or experimenting. On this view, the Eroica is a composition composed by a composer named Ludwig. What more needs to be said? Why substitute a member of the creativity family for any of these specific terms? Let me suggest an answer that parallels distinctions made recently by Vernon Howard (1982, pp. 120-121).

If I say to you, "Look, I am drawing," you may easily answer, "Yes, so I see." But if I also say of my drawing, "Look, I am creating," would you automatically agree?

Someone might say "Yes, Elliott is creating: he is creating a mess, or a problem, or a nuisance of himself. Then again, someone else might say (with all seriousness), "Yes, Elliott is creating because he is a unique human being and this fact alone qualifies his drawing as creating." But on this view, everyone's drawing, or dancing, or talking would by "creating"; indeed, everything everyone does (or has ever done) would qualify as an instance of creating. But these loose uses of the term "creating" are surely not what we intend when we talk about Beethoven "creating" the Eroica. In such cases "creating" is used in praise of whatever is involved in the production of some thing that we value or cherish.

In short, it is more likely that people would call my amateur scribbles "drawing," not "creating." Why? Because drawing, dancing and composing--whether they are being done well or poorly--involve identifiable human actions that we can pick out of the complex web of human actions as easily as we do trout fishing, or water skiing. But creating can not be isolated in the same way. To label something "creating" requires a judgement of merit.

In other words, one creates by means of drawing, or composing. And whether or not we also call such drawing or composing "creating" depends not on the personality of the doer,

not on the process she says she follows, not on her creativity test scores, not on the fact that she is a child, or a woman, or a professional--instead, it depends on the quality of what gets done.

David Perkins (1981) concurs:

> The kind of creating we are talking about is the kind of creating that leads to creative results. Creative people are people who often produce creative results. ... The idea of a creative outcome or product is the conceptual center; all the other words in the family get their meanings from it (p. 245).

We may conclude, then, that although creativity has both an outside dimension (a product) and an inside dimension (a doer's traits or cognitive operations), it is the outside dimension that has priority. The creativity family is known to us because of the family business; and the family business (the center of the creativity family's life) is the production of outstanding achievements we deem to be "creative."

But how do we decide whether something merits the family name "creative"? Indeed. Although people seem to have little trouble agreeing that something like Brahms' First Symphony is a striking example of creativity, they often have trouble saying why. What's the problem?

4. Determining Merit

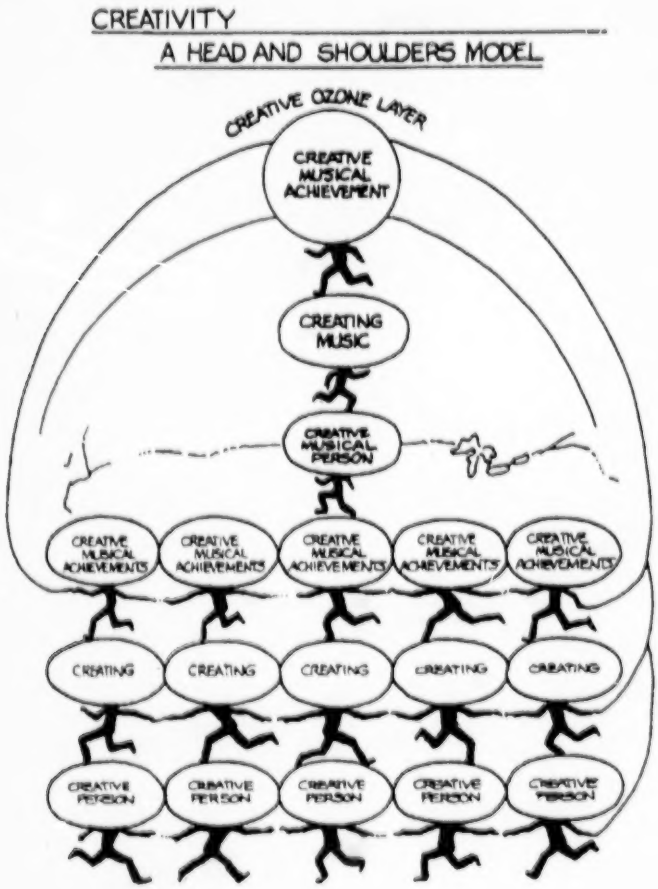
Perhaps a major reason why people have difficulty deciding what counts as "creative" is the confusion that surrounds the terms we use to describe and honor outstanding achievements. Among these terms the most common are: original, novel, singular, unique, new, imaginative, and divergent. I suggest that the key term here is "original." Originality is a necessary condition for calling something creative. Nevertheless, it is not sufficient by itself. Let me explain.

To decide the merit of an achievement--to decide whether something is "creative"--we tend to seek out and focus on aspects of the product or achievement that are extra-ordinary, un-usual, or un-familiar. But this is only partly correct. For creative achievements are not merely un-usual things. On the contrary, the things we prize for being extra-ordinary appear this way because they differ from what we already know--from what is ordinary or usual in our experience. By focusing exclusively on a product's foreground (its new or unusual features), we risk overlooking the product's background (its familiar features, including its links with past productions) without which any new product would only be bizarre, not original.

For example, to say that a new dance suite for wind ensemble is original is to connect it with other things of a similar kind; namely, other dance suites for wind ensemble that have come before and out of which this un-usual, or extra-ordinary suite has developed. In other words, to say that something is original is to acknowledge that it is simultaneously similar to,

yet different from, its relevant ancestors. An original band suite both partakes of a particular tradition of producing and yet departs from this tradition in some way. The degree of departure may vary from product to product. But some link to previous achievements is a necessary condition for judging something "original."

Indeed, Beethoven, for example, did not invent MUSIC, nor did he invent symphonic music, nor did he achieve something in the Eroica that was novel or unique in the sense of bizarre. On the contrary, the Eroica combines both the familiar and the un-familiar; it stands on the shoulders of other achievements. From this we realize something extremely important: that creative musical achievement depends upon a network of relationships among specific musical practices and prior musical achievements, as well as audiences, standards, and the social conditions pertaining to each and all of these.



From the perspective of this "head- and- shoulders view" of creative musical achievement, we need to rethink the common associations we make between creativity and uniqueness, or novelty. Creative products are not creative because they are solitary in type or character. In fact, it would be difficult to imagine something truly unique or novel in the sense of something completely unrelated to what we already know, unless it was brought from Mars. In such a case, it would deserve to be called strange, weird or alien, but not original.

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But if originality in the sense of "simultaneously ordinary and extraordinary" is a necessary condition for calling something "creative," is it sufficient? To answer, suppose for a moment that you have designed and produced a new type of car. This car you have made is not only beautiful, it is original in as much as it combines the best of both past and present technology. Unfortunately, it has one problem: it has no room for a driver or passengers. Is this car "creative"? No. To be creative, something must not only be original, it must also be significant within its own context or tradition. Indeed, where an achievement does not represent a radical leap forward in style, or theory, or knowledge--take Brahms First Symphony, for example --our judgement of such an achievement is based on criteria implicit in the tradition of which it is a part. Such judgments, therefore, are not especially difficult. Furthermore, such achievements only count for something by first achieving quality in basic, familiar respects.

Craftsmanship, then, is also a necessary condition of creativity. The presence of "craft" is partly what we indicate when we say that something is significant. Why? Because whatever else such things as music, dancing, chemistry and medicine may be, they are, at root, linked bodies of skills and understandings. As such, each type of music, dancing, chemistry and medicine has its own traditions, standards, histories and problems. One of the key ways in which an art like music develops is by confronting musical problems of one sort or another--problems of form, execution, and so on. And so it is that we evaluate the significance of achievements by considering them in relation to the dynamic human practice to which they belong and out of which they grow. Without a human practice in which original and significant production is possible, a person cannot begin to make something that might qualify as a creative achievement.

But neither is the presence of craftsmanship a sufficient condition for calling something creative. Just because she is singing a song well, we cannot claim that little Mary Jones is creating or that she is "creative." Mary may certainly be on her way to becoming creative; in this sense, Mary is somewhere on the continuum toward creative achievement. But Mary is not automatically "creative" or "creating" just because she is singing a song. Performing, composing, arranging and improvising are not automatically "creative" activities because they are musical enterprises. They are means of creating. To be rightly called creative, an effort in composing, arranging (or whatever) must end in an outcome which is deemed original and significant in relation to the musical practice of which it is part (including its concomitant traditions and standards). Considered in this light, the criteria of originality and significance (and, therefore, of creativity) are not elusive. They are outside; that is, they are objective, logical and rational to a considerable degree.

To complete this section, we must also consider originality in relation to other kinds of musical achievement. That is, we must consider those examples of music that depart widely and wildly from traditions. Some of these deserve to be called creative, but on different grounds than we have examined heretofore.

For example, Debussy developed a new musical style by seeking out and confronting the artistic opportunities he saw in the music of other cultures and in the techniques of impressionist painting and poetry. Part of the value we assign to Debussy's compositions stems from his inventiveness. He broke with old concepts of scale organization, orchestration, form,

melody, harmony, and so on. He expanded the horizons of music and paved the way for twentieth century innovations. Debussy's music was original, but it was also significant. It played a crucial role in advancing music generally and in developing specific music media (as did the operas of Monteverdi, the jazz improvisations of Charlie Parker, and the songs of Cole Porter). The achievements of these musicians are readily acknowledged to be "creative." Yet, even these more discontinuous examples of creative achievement are not impossible to connect with the factors and conditions that spawned them. Why? Because as Bailin (1985) observes:

> The novel element arises in the context of an enterprise that has a history and is part of a tradition; and the tradition has a direction, goals, and meaning in light of which the innovation can be understood (p. 9).

In music, then, we award the designation "creative" to works and performances that are quintessential examples of a particular style or technique, as well as to those that depart sharply from existing traditions. The basis for doing so in both cases is a matter of originality and significance within a tradition.

Among the other factors involved in deciding originality are the means available to artists. A musician's vision and achievement is related to the technology at his disposal and to his ability to bend it to his/her ends. For example, the organ, the pianoforte, the synthesizer--each development expanded the possibilities of keyboard music specifically, and music generally, and simultaneously established new criteria for judging the originality and significance of keyboard music.

In sum, factors inside and outside a practice (social, economic and so on) influence what is produced in an art, how an art develops, and how it is evaluated. Our assessment of the creative achievement of musical performances and works, as well as the extent to which they move us, is not simply a matter of aesthetic qualities noticed head-on. Rather, our judgement as well as our musical response is tied to a variety of perspectives and factors. It is our knowledge of technique, style, tradition, standards, history and context that influences our beliefs about musical works and, therefore, our perception, appreciation and evaluation of musical works as "creative" or not.

5. A Pause for Perspective

A pause for perspective might be useful now. To this point, I have made and/or inferred five propositions:

1) that "creativity" involves at least four interdependent dimensions of human endeavor;

2) that creativity is a family of concepts pertaining to these four dimensions and their interactions;

3) that creativity is also the phenomenon that results from the interaction of these four dimensions;

4) that the heart of "creativity" taken as a family of concepts is the production of an achievement that is deemed creative; and

5) that the necessary conditions for awarding the merit "creative" include the originality and significance of the achievement judged in the context of a specific tradition of human practice.

More importantly for music education, however, I have implied that to use the label "creative" too loosely only serves to hide what educators need to understand about the sources and means of creativity. To anticipate an upcoming point: I suggest that if we use undisputed examples of musical creativity as our beacons, we will realize that many of us already understand how to compose and arrange and perform and improvise, and that many of us know how to teach people to do these things very well indeed.

In other words, we know where to find the roots and means of creativity: they lie in a mastery of the skills and understandings required in specific fields of endeavor, and in a knowledge of the achievements, traditions, standards and challenges of a discipline.

Let us now turn our attention to the so-called creative "process" with particular attention to creating music.

6. Creating as "Family Business"

Artists (and specifically poets), says Plato in his Ion, "are not in their right minds when they are composing," they are "inspired and possessed." Furthermore, says Plato, artists do not produce by means of skill or knowledge, but "by power divine."

The echoes of Plato's view still ring in John Dewey's pronouncements on creating:

> The direct effort of "wit and will" of itself never gave birth to anything that is not mechanical ... something is born almost in spite of conscious personality, and certainly not because of its deliberate will. When patience has done its perfect work, the man is taken possession of by the appropriate muse and speaks and sings as some god dictates" (Dewey, 1934, p. 73).

Plato's view of creating as an irrational, muse-directed or god-governed activity places creating beyond the maker's reach. It has its modern counterpart in aesthetic theories of art (and, therefore, in the philosophy of music education as aesthetic education).

On the aesthetic view, the criterion for deeming something "creative" lies not in a product but in a process. An achievement is creative if and only if its creator conforms to a process of exploring and discovering feeling in isolated communion with the aesthetic qualities of a

medium (Reimer, 1989, pp. 56-73). Technical, social and historical concerns are considered inimical to creating. Why? Because such so-called extra-aesthetic, nonexpressive or functional concerns are believed to contaminate the subjectivity of the creative process by interrupting the artist's developing feelings and the medium's developing independence. In fact, Reimer (1989) claims that if an artist gets in the way of his feelings by trying to regulate his creating with conscious intent, or by trying to achieve something external to the needs of developing feeling, "he has violated his art and thereby corrupted it" (p. 138).

Overall, traditional aesthetic theories of music as fine art (as opposed to contemporary philosophical concepts of music) present a detached and introverted description of creating. On the aesthetic view, the composer is portrayed as being alone with her feelings and her sounds. She has no plan, no idea in mind, no obligations to fulfill outside the demands of the sounds themselves. She has no concerns about potential performers, or audiences; she gives no consideration to the instruments or voices to be employed; she is oblivious to the social, cultural and economic contexts in which she is composing. In short, aestheticists like Beardsley, Dewey and Langer (and aesthetic educators like Reimer) neglect the cultural, material and social realities of music-making (Wolterstorff, 1987). Furthermore, aestheticists conceive the cognitive operations involved in composing as distinctly different from everyday cognitive processes like conceptualizing, planning, reasoning, recalling, and rule-following in as much as aestheticists believe that feeling is autonomous and that it is the locus of compositional control.

But is it reasonable to neglect the practical and social interplay involved in composing and performing creatively? Put differently, in trying to understand what takes place in creative composition or performing can we afford to ignore the possibility that skill, knowledge, traditions, standards and everyday cognition play an essential role in creating? Surely not.

In fact, in contrast to traditional aesthetic doctrine, which Vernon Howard (1988) calls the "hands-off" view of creating, contemporary philosophers of art like Wolterstorff, Sparshott, Goodman and Howard take a "hands-on" view of creating. Howard (1988) frames the modern thesis this way:

> ...performing expressively, finding expression in a work of art, or producing a work that is expressive in some way are all "hands on" constructive activities directing rather than following the rush of feelings. (p. 43).

The logical roots of the modern hands-on view of creating are found in the word "creating" itself. The term comes from the Latin, creare, meaning to make, or to produce. This emphasis on human agency reinforces the idea of creating as deliberate "hands-on" human action. But if creating traces its roots to human action, then we must ask, is this action purely a manifestation of character? Put differently, is a creative musician one who produces creative musical products in the same way a brave man acts bravely? Again, surely not.

Although it is certainly true that one person may be born with the mental equipment that enables them to compose more easily than another, no person is born a composer. The producing of musical compositions is not simply a manifestation of character. A composer

does not become such merely by birth or instinct, but by developing skill and knowledge in the techniques, history, and standards that underpin her domain of composing. Looked at from in front, then, creative musical production rests on expertise.

Obviously, the expertise required to become a composer is not simply picked up. It is learned informally and formally; it is developed through example and direction in accordance with rules and standards. More precisely, composing, performing and so on are on-going social practices. One learns from others directly and indirectly--from practicing composers, teachers, critics, musicians, conductors and others who embody or share one's aspirations. Music-making, whatever form or level it takes, is a social practice; and it is an on-going practice to which new members are constantly being inducted.

To enter into a practice, says philosopher Alasdair Macintyre (cited in Wolterstorff, 1987), is "to enter into a relationship not only with contemporary practitioners, but also with those who have preceded us in the practice, particularly those whose achievements extended the reach of the practice to its present point" (p. 109). Upon entering a practice, "it is thus the achievement, and a fortiori the authority, of a tradition which I then confront and from which I have to learn" (p. 109).

In reality, then, when a composer begins to work s/he is not acting in solitary, but as part of a social practice. She both depends upon, deploys and, perhaps, transcends the techniques and standards of composing that she has come to know through her induction into the social practice of composing. Furthermore, like all practitioners, a composer takes up her practice "at a certain time in the history of that practice and at a certain place" (Wolterstorff, 1987, p. 112).

In fact, a composer must be aware of composing her work to fit or to stretch the specific performance practices and use-practices of her time. Why? Because, practically speaking, composing for a certain musical context provides necessary feedback for the guidance of composing (performing, arranging, improvising). Thus, the goals and standards which govern the compositional process are infinitely rich and various: "They are not all so simple nor so invariantly universal as just composing an objective correlative to one's feelings or just creating an aesthetic unity" (Wolterstorff, 1987, p. 113).

Much recent empirical research supports this practice-based view of creating. For example, after twenty-five years of researching creativity, Mihalyi Csikszentmihalyi (1988) draws this conclusion:

> We cannot study creativity by isolating individuals and their works from the social and historical milieu in which their actions are carried out. This is because what we call creative is never the result of individual action alone; it is the product of three main shaping forces; a set of social institutions, or field, that selects from the variations produced by individuals those that are worth preserving; a stable cultural domain that will preserve and transmit the selected new ideas or forms to the following generations; and finally the individual, who brings about some change in the domain,

a change that the field will consider to be creative (p. 325).

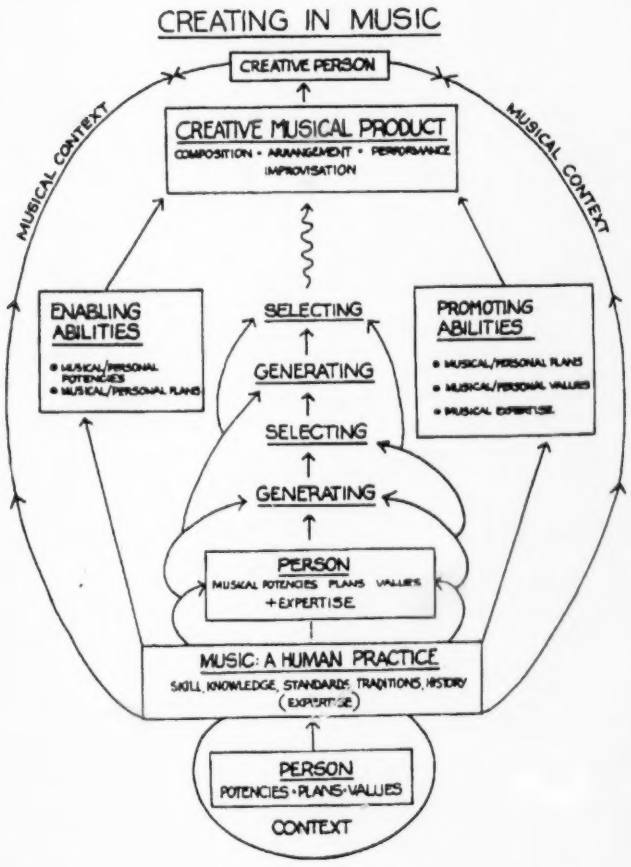
But what can be said about the bringing about of changes? In other words, what can we say about the so-called "process" of creating?

First, the very idea that creating is a "process" must be seriously questioned. Why? Because the idea of a "process" is that of a sequence of events following one another in a regular order between a definite beginning and end-point. A process is not consciously determined by the person directly involved or going through the process, even if s/he may initiate, interrupt or interfere with the sequence of events. The sequence of events in a process is causal: one event in the sequence is necessary and sufficient for the next. Thus, processes are unlike actions in that their unity and parameters are physically set and not arbitrary.

Consider, for example, the digestive process and the immigration process. In the immigration process one must follow a prescribed order of events we call a procedure. In digestion, our stomachs usually follow a natural sequence of events (except, for me, after eating pizza). In both cases, something gets processed and it is not we who are responsible for the processing.

The upshot of this is that if we begin by assuming that creating is a "process" we are predisposed to think of it as something inherently uncritical, unconscious, devoid of skill, and resistant to personal intervention, control, or evaluation. Thought of as a "process," creating is neither "responsible" not rational action; the maker is but a puppet manipulated by some outside force--a god, or a muse, or the power of feeling.

But common sense, as well as contemporary philosophical and psychological research, argues the reverse. Because it pivots on expertise, creating is now considered domain-specific (Weisberg, 1988; Gardner, 1988). In other words, although there are features common to creating across many domains, creating is <u>not</u> a generic activity. Creating manifests itself in a dynamic interaction among a family of systems including: a specific human practice, a practitioner, and the socio-cultural context surrounding each and all (Csikszentmihalyi, 1988). The following model of creating in music attempts to tie these ideas together to form what might be called a practice-based model of creating in music.



The dynamic interaction of musical creating swirls around two kinds of activities that Perkins (1988) calls "generating and selecting." In the case of composing, for example, melodic, harmonic, rhythmic and other possibilities are generated and selected for their potential to be original, new, useful, and so on. The maker, in short, is guided by a purpose. Creating is a goal-directed enterprise.

The motive force that initiates and drives creating seems to be an intrinsic desire to search out gaps in what is already known or done within a practice or domain; to vary the way things are done in a practice; or to go beyond what is already understood or accepted (Barron, 1988; Csikszentmihalyi, 1988; Gardner, 1988; Gruber and Davis, 1988; Tardif and Sternberg, 1988).

This does not mean, however, that the maker knows precisely what the final outcome will be from the outset. On the contrary. Instead of making the product directly, the maker deploys and organizes his mental potencies by means of what some researchers now call "plans" (Perkins, 1988). "Plans" refer to the patterns a person follows in his creating. Plans take many forms including: conscious intentions; mediating mental schema; analogical thinking techniques; brainstorming methods; and self-management strategies (Perkins, 1988, pp. 323-328). Plans promote both the generation and the selection of possibilities.

Beethoven's sketchbook was a kind of plan. It was a means he used to channel, organize, retain, edit and refine the musical ideas generated by the coupling of his extraordinary skill and knowledge and his extraordinary musical potencies (his aural acuity, his musical memory, his cognitive ability to analyze, break down and rebuild musical materials). Beethoven did not just have great ideas, he worked hard and often to generate and select musical ideas according to common and innovative strategies.

Indeed, contrary to popular notions, creative products do not arise by accident, or by spontaneous insight, or as a result of unconscious processes. The latter are all involved in creating, but they are not central or unique to creating (Tardif and Sternberg, 1988). Instead, creative products evolve by means of plans constantly altered by deliberate choice, by commitments to goals, and by values. In all of this there is repeated undoing and redoing. Means become temporary ends in progress toward the final end product.

Not surprisingly, then, there is wide agreement among researchers that creating within a specific domain or practice is a deliberate enterprise that takes time and has many variable phases (Gardner, 1988; Sternberg, 1988; Csikszentmihalyi, 1988). Creating involves constant redefinition of a problem; constant revision of viewpoints through comparing, contrasting, and rethinking in terms of analogies and metaphors; and the constant testing of ideas or patterns in new and old situations.

In fact, Perkins (1981) recommends that we take the long view of creativity to remind ourselves that years of study and striving and centuries of history in a specific tradition are the main sources of the individual maker's inclination and ability to generate and select original and significant possibilities (p. 278). As yet, we have not considered how selecting contributes to creative production. People who regularly produce creative products seem to select for ideas that are original and significant within a tradition on the basis of values. In fact, values are the complex network of personal and professional criteria that may instigate, maintain, influence, decide and edit directions in generating and selecting (Perkins, 1988). We will examine values more closely in the next section of this paper.

To end this portion of the discussion, however, let's look back at the picture of composing painted by traditional aesthetic theory. From our present vantage point, the aesthetic view of creating seems limited at best and distorted at worst.

In the first place, as Vernon Howard (1988) notes, it seems perfectly understandable that musicians can know in advance what they want to do. In fact, integral to creating as a "hands-on" activity is an end-in-view in the sense of an image of how a performance ought to go, or what a composition will be like; a gauging of what it is technically right and wrong to do and to decide at any given point; a plan; a notion of procedure--in short, expertise and experience in a medium. If not, then a beginning trumpeters' toots and an infant's first finger painting are as good as a solo by Wynton Marsalis or a watercolor by Monet.

Second, modern thinking in philosophy and psychology does not support an aesthetic "explore and discover" model of creating (cf., Reimer, 1989, pp. 59-65). To compare the creating of an artist or scientist to "exploring" implies that creating resembles the first solitary

investigation of unknown fields full of chance and accident, hitherto untraveled by anyone, including the explorer. But this picture is more Romantic than real.

Furthermore, feeling is not exclusive to music-making. Feeling is present in all we do and make because there is no such thing as feeling without thinking. Thinking and feeling are two sides of the same coin. Where there is cognition there is affect; cognition and affect are not separated in life as aestheticists so often claim. Feelings result from our beliefs and understandings about situations--musical, scientific, and otherwise. Feelings, therefore, can be appropriate or inappropriate just like the beliefs and understandings to which they are attached. Feelings draw attention to what we value in a situation, and how much we value it. Feeling, then, plays a role in creating, but not the dominant role that Romantic aestheticists like to believe. The value of music lies in the fact that it is a nexus for both cognition and affect; thinking and feeling; the conceptual and the nonconceptual. Music's power is explained by the fusing of these dichotomies in one and the same experience, not their separate concentrations in art and nonart, as aesthetic educators theorize (e.g., Reimer, 1989, p. 86).

In practice, creating ranges over well known territory in the conscious pursuit of problems presented by familiar techniques, mediums, traditions and styles. Makers on the way to creative achievements deliberately try out various ideas and strategies at familiar junctures along paths they have travelled before in previous words, crafts, or approximate performances.

Such deliberate, practiced effort invokes skill and knowledge such that a good performance, or tune, or improvisation is the pay-off of effort expended and expertise deployed rather than the act of an emotional puppeteer pulling the strings of vulnerable artist-puppet (Howard, 1988). Furthermore, as Perkins (1981) argues throughout his book The Mind's Best Work, creating involves many capacities that are not intrinsically creative. Perkins explains:

> The ordinary acts of recognition that warn us away from open manholes can, in the right situation, warn us away from pitfalls in problem solving. Acts of recollection that tell us where we last used the pen with the blue cap can, in different circumstances, give us a word of poetry. Such resources are not what makes people creative, but they are what does much of the work of creating (p. 275).

In short, the roots and routines of ordinary thought--including informal reasoning, remembering, deducing, inferring, rule-following, and pattern recognition--are also the roots of the kind of thinking that yields creative products.

All in all, the key to creating seems to lie more in "working than waiting, more on expending than expressing" (Howard, 1988, p. 53). It relies more on preparation and previous attempts than perceiving and responding. The locus of decision making about what to do is to be found less in alleged mental states than in the mindful control of constructing.

7. Creative Person as "Family Member"

People often want to account for extraordinary creative achievements with equally extraordinary profiles of producers. Hence the tendency to attribute the success of creative people to unique or novel abilities, or to some special "stuff" the creative person is presumed to possess. From these beginnings people often conclude that the basic mentality of creative people is fundamentally different in kind from human mentality in general. On such illogical grounds people do one of two things: they either dismiss the reality of creativity altogether, or they demand that creativity be defined by reduction to some special gift or supernatural capacity.

The results of such thinking are mainly two. On one hand, we have Platonic-aesthetic notions of the creative person that perpetuate a supernatural portrait: the creative person is "possessed," inspired, supersensitive, super-feeling, or "a genius." On the other hand, we have psychology's mechanistic view of creativity as a one-dimensional mental trait: creative people across all domains are believed to possess a certain mental profile or a cluster of measurable traits called "creativity." On this view, creativity is open to engineering and/or prediction independent of personal achievement in a specific domain.

Today, the flaws in these views are well recognized. In the first place, the assumption that we can explain the creativity of a product by reference to some specific mental trait of a person is based on a logical fallacy (Briskman, 1981). The fallacy can be summarized as: "after-this-therefore-before-this (post hoc ergo propter hoc). In other words, it does not follow that because someone produces something deemed "creative" that they are therefore the carriers of special mental traits that can be measured in testing. Put differently, it is one thing to explain roulette; it is quite another to assume that such explanations will take the gamble out of gambling.

But even if we could locate something like a creativity center in, say, Leonard Bernstein's brain, and detail precisely what's there and how it works, these findings would not be the general traits of creative people. These findings would be the specific traits of one musician who produced specific things like West Side Story, Candide, and numerous individual performances within a specific musical practice at a specific time. At best, a successful probe of Bernstein's mind would only tell us how to reproduce West Side Story, and Candide, and other things that Bernstein himself has made, and this is not what we need or want.

What I am suggesting, then, is that it may be illogical to claim (as some psychologists do) that a creative achievement, which is unpredictable in essence, can be predicted or "tested for" in any meaningful way. Originality is that aspect of thought and action that is inherently opposed to prediction. To suggest that there is such a thing as the creative personality is to suggest that anyone having certain traits will produce creative products. But if this were true then creativity would be a matter of guarantee and, therefore, no longer "creative" in the sense of original and significant to a field.

Having argued against the common view of creativity as an unusual type of person, what can we say about the creative person as a member of the family called creativity? We cannot deny the fact that creative achievements get done by people who have various "somethings."

In this sense, "creativity is whatever people who get creative results have" (Perkins, 1981, p. 245). If this "something" is not a particular mental trait, or set of traits, what is it?

Both common sense and a wealth of recent empirical research indicate that creative achievement is not linked to isolable creative abilities, nor is creativity a matter of abilities that are different in kind from those that anchor normal human cognition and action. In other words, just as there is no such thing as "athleticity" that makes a person a great hockey player, there is no such thing as creativity in the sense of "specifically creative abilities" (Perkins, 1981, p. 247). Instead, says Perkins:

> The extraordinary, if not specifically creative, abilities involved in extraordinary creating ... can be understood as exceptional versions of familiar mental operations such as remembering, understanding and recognizing (p. 247).

Indeed, we don't usually view the football or hockey star as someone whose abilities are different in kind from those we use everyday. Instead, an athlete's coordination, strength, and control are extensions of familiar, everyday actions. The football player's coordination is like ours, only more refined. The hockey player's skating is like ours, only practiced to an extraordinary level of preparedness in the sense of maximum agility, smoothness, strength and control. In the achievements of an athlete we easily recognize and grant the role of practice, trial and error, dedication, personal and professional attitudes, values and strategies.

Hockey star Wayne Gretzky, for example, has a refined ability to generate and select scoring opportunities. But this ability is not due to an innate mental potency. Gretzky generates and selects plays from a particular "ad-vantage point" atop his super-fast, super-flexible, super-practiced skating legs. Speaking of his own abilities Gretzky says, "in my own way I've spent as much time studying hockey as a med student puts in studying medicine" (cited in Gardner, 1983, p. 231).

The creative person, then, combines many abilities that both enable and promote creative production. Creativity as personality cannot be limited to the possession of potencies like general intelligence, or musical intelligence, or ideational fluency and flexibility (a person's ability to quickly generate relevant ideas). In fact, Perkins (1988) reports that although intelligence, for example, appears to enable creativity, it does not promote it. That is, "the more intelligent one is, the more one can be, but still may not be, creative" (p. 319). Furthermore, empirical research offers only scattered support for a correlation between ideational fluency and flexibility on the one hand, and measures of actual creative achievement (Perkins, 1988, p. 320).

In fact, there is no clear evidence that any potency promotes creativity. Potencies may equip a person for doing something well, but the person may or may not do that something creatively. Potencies do not make a person creative; they simply allow the person to be creative if other factors support and encourage it (Perkins, 1988, p. 323).

But what can we say for sure if we cannot locate the creativity center in the brain that both enables and promotes creativity? Contemporary psychology provides considerable

evidence to support the view that specific knowledge and know-how--in a word, expertise--is the foundation for creative achievement in a field (Perkins, 1988; Gardner, 1982; Weisberg, 1988; Schoenfeld and Herrmann, 1982). Such achievement depends not only on a repertoire of schema specific to a particular field, but on "deploying those potencies, plans and values that are distinctive to a field" (Perkins, 1988, p. 331).

Expertise, it seems safe to say, may both enable and promote creativity. Why? Because expertise not only carries creating forward, it also alerts the maker to what might count as original and significant in a field. Expertise increases the probability of generating and selecting ideas that have promise for creative production in a field.

In fact, it is too seldom realized that expertise as the masterful application of skill and knowledge is a rich and highly complex form of knowledge--what philosophers now call procedural knowledge, or "knowing-how." Expertise partakes of propositional knowledge (knowing-that); but it applies that understanding to produce rational action--highly articulate and highly informed action.

Hence, people are creative within specific domains, even though they may share common traits with people who are creative across domains (Gardner, 1988; Johnson-Laird, 1988; Tardif and Sternberg, 1988; Weisberg, 1988). In other words, the creative person looked at head-on is recognizable not so much as someone who shares general traits with creative people across many fields, but as a person who has particular mental potencies (like the factors that make up musical intelligence), and as a person who deploys domain-specific plans and values.

Just as cognition is no longer considered a general phenomenon but something that consists in a number of "frames of mind," factors, or multiple intelligences, we no longer speak of an individual as having creativity, or being creative in a general sense. Instead, we recognize individuals who produce at a high level in specific fields as creative musicians, creative scientists, and so on. Furthermore, although the basic moves of generating and selecting seem applicable to creating across all domains, the specifics of these vary across domains and even within domains.

Recall that by "plans" Perkins (1988) means the patterns a person follows in her creating. By "values" Perkins means the criteria that influence a person's decision-making and, therefore, the factors that shape the direction of her endeavors. Plans and values range widely between conscious and unconscious cognitive operations, and between innate and learned tendencies. For example, whether a person learns it or "has it," the tendency to challenge traditional assumptions seems to be an effective "plan" for a researcher wishing to generate opportunities for creative development. In fact, studies suggest that one tendency prevails among all creative people: the ability to generate and recognize good problems, challenges, or opportunities in a field and exploit these opportunities (Tardif and Sternberg, 1988; Walberg, 1988; Perkins, 1988).

In the category of plans we might also place several other cognitive tendencies: the tendency to think metaphorically, to be independent in judgments, to be open to novelty, to visualize internally, to use wide categories of organization, and to build new frameworks for

thinking and acting.

Among the values that may promote creativity are, first, the "contextually appropriate values for different disciplines" (Perkins, 1988, p. 328). For example, Robert Shaw has his criteria for choral performances, and Wynton Marsalis has his values for jazz trumpet solos.

Among the generic values that creative people seem to share across domains is a strong tendency to cherish originality itself. This disposition fosters creativity by fueling the creative individual with the intrinsic motivation necessary to sustain the pursuit of creative achievement (Amabile, 1983).

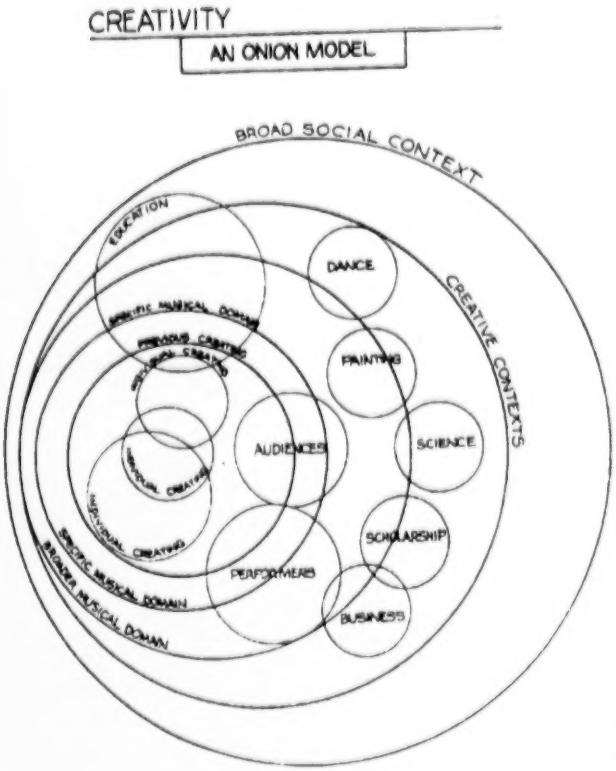
Closely allied with his love of originality, the creative person seems to have a positive affinity for ambiguity and complexity, as well as a willingness to confront the resistance of old ideas and the courage to risk new positions. Understandably, then, abundant research argues that creative individuals have a strong inclination to be their own person in the sense of self-reliant, independently-minded, self-confident and self critical (Barron, 1969, 1972; Getzels and Csikszentmihalyi, 1976; Helson, 1971; Mansfield and Busse, 1981). Taken together, such values are believed to promote creativity because they act as filters to guide the ways in which people generate and select problems and solutions (Perkins, 1988, p. 328).

Finally, among the most obvious values that promote creativity are perseverance, curiosity, dedication and a disciplined approach to one's work. These traits seem too obvious to mention. But in mentioning them we return once again to a fundamental point: that people who frequently produce creative results in a domain do so because they deploy practice-specific abilities, including expertise plans and values, to promote creative achievement.

8. The Family Circle

Throughout this discussion I have tried to stress the essential role of context in creativity--the contexts of the creative product, the producer, the producing, and the wider context of all these dimensions. At this point I will tie up several points in this regard.

Without vital background knowledge, including models of previous achievements and the norms, roles and precedents of human practices, a maker could not even begin to make something "creative." Without the reciprocal relationship between makers and audiences, makers and teachers, and an interaction among peers, there would be no means of developing expertise, plans or values, and, therefore, no means of deploying innate abilities. Furthermore, without peers there would be no confirmation of expertise and no protection or liberation for novices who might otherwise be discouraged by feedback from members of the general public. There are, therefore, many circles or dynamic systems that overlap like the layers of an onion to make up what we call "creativity."



9. Summary for Perspective: What Creativity is.

In summary, the answers to the questions Why, What, How, and Where is creativity? cannot be found independently in the thought, action or achievement of a person, or in the contexts of any one of these.

Instead, creativity is ...

a phenomenon that results from the interaction of a family circle of dynamic social systems including: a human practice, a practitioner, and the social-cultural contexts surrounding each and all. This family circle pivots on the family business of original and significant production within a specific domain.

Part Two: Creativity as Educational Ideal

The concept of creativity developed so far has brought together a family of matters; but it is still incomplete. There is at least one important sense of creativity that has eluded our net. Let me explain.

1. A Family Cousin: Creativity as Ideal

To educators, creativity is more than a concept; it is an ideal. Creativity is synonymous with such things as freedom, individuality, progress, democracy and autonomy. As such, creativity serves as a beacon for educational efforts. It reminds us that education must not become so concerned with the transmission of information that it neglects the transformation of individual potential into actual achievement for the improvement of society in general, and for the individual in particular. It reminds us that education must help people to make a life as well as a living.

One of the chief values of creativity, then, lies in its corrective and inspirational force. Regardless of the complexity we can give it, or the elusive character it has, or the pessimism some authorities may hold about its development, creativity as an educational ideal forces us to reflect on the nature of education itself. I suggest, therefore, that even if readers are not convinced by any viewpoint on creativity presented here or elsewhere, it is important not to mistrust the concept of creativity itself.

In fact, the family called "creativity" exists. It lives in your neighborhood and mine. It is here to stay. There have been many questions and ideas about it, and there will probably be many more. So, if creativity seems to combine real and possible contradictions, and if it eludes simple definition, then by doing so it both presents itself accurately and represents our daily lives well. For in everything we do we must face contradictions between the old and the new, the past and the present, the objective and the subjective, and so on.

Like "Education" itself, creativity is not something that we achieve for our students, nor is it something that one teacher is totally responsible for in relation to one group of students. Like "Education," creativity is a beacon. We all become educated gradually and we identify our progress toward the goal of becoming "an educated person" in terms of both tangible and intangible understandings and achievements. As teachers, we are responsible for phases and aspects of people's Education. Education is an ideal, but we can and do translate it into manageable goals and objectives. We divide it into various aspects and specialties as best we can. Teachers cannot guarantee that students will become "Educated." What teachers can do, however, is to be more or less certain about what they can offer to promote certain understandings in their students at a certain time and place as they move toward "becoming Educated."

Similarly, we are responsible for phases and aspects of people's movement beyond beginnings, beyond mediocrity, past excellence, and toward creative achievement. Teachers cannot guarantee that students will produce creative achievements. But teachers can be quite certain of the ground under their feet as they teach toward musical creativity. For musical

creativity manifests itself in tangible achievements that can be evaluated rationally in terms of standards and traditions. As music educators, then, we can contribute practically to enabling and promoting creative production in our students at a certain time and place as they move toward creative achievement.

In short, I believe that creativity, like Education, is both an ideal we must preserve and a goal we ought to pursue. More concretely, I have tried to support the idea that creativity understood as a family of linked social systems can be translated into educational objectives. In short, I believe that creativity is a plausible educational goal.

Furthermore, my optimism is supported by the fact that of the few efforts to teach for creative achievement that have been well and thoroughly evaluated, positive results have been obtained (Perkins, 1985).

Toward Creative Achievement

With this background I would like to offer seven principles for the development of musical creativity. These principles derive from both the philosophical concept of creativity developed here and the consensus of opinion found in summaries of contemporary research on the psychology of creativity.

1. First, I believe we ought to foster students' intrinsic interest in the expertise of music-making as an end in itself, as well as a means to understanding prior musical works. This includes inducting students as fully as possible into the worlds of musical practices and treating them as members of these practices.

2. Second, we need to provide many opportunities for students to exercise their developing musical expertise in a receptive environment that will foster the self-esteem needed to risk producing and the evaluation (both by self and others) of such producing.

3. Third, we ought to highlight musical "opportunity-finding" by involving students in formulating (rather than just carrying out) worthwhile musical projects: e.g., planning innovative interpretations; formulating plans and sketches of musical compositions and arrangements; varying traditional compositional forms, formulas, and so on.

4. Fourth, we ought to teach the various ways in which makers can and do plan for creativity: that is, ways to generate multiple approaches and solutions to solving interpretive, improvisational and/or compositional challenges.

5. Fifth, we need to encourage students to make reasoned judgments about what they do and hear as a way of developing values that will promote the selection of musical possibilities that have the most creative promise.

6. Sixth, music education for musical creativity must provide time for students to generate select, rework, and edit productions.

7. Seventh, we should avoid undermining intrinsic motivation by gushing-over, hovering-over or taking-over while students are trying to create. The model seems to be teacher-as-coach, -advisor, -informed and considerate critic; not proud mother, stern father, or know-it-all big brother.

In conclusion, consider that these seven principles may be both descriptive and causative of musical creativity. That is, if we step back we may see that these seven principles form a picture--we see a person who is disposed to be intrinsically interested in music-making as an activity, as a craft, and as a social practice; s/he tends to work hard at developing his/her expertise; she tends to take risks and to trust her judgement; she tends to generate possibilities and then select from these on the basis of musical and personal values, and so on.

To end, I offer a variation on G. K. Chesterton's notion of creativity. These words emphasize a theme that underlies both the "human practice concept" of creativity offered here, and the principles for developing musical creativity that derive from it.

> To me, the difference between doing something and creating something lies in this: that a thing done can only be loved after it is finished; but a thing created is loved before it begins.

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